International Journal of Infectious Diseases 48 (2016) 5–6

Contents lists available at ScienceDirect

International Journal of Infectious Diseases

journal homepage: www.elsevier.com/locate/ijid

Medical Imagery

Racemose neurocysticercosis: a cluster of bad grapes

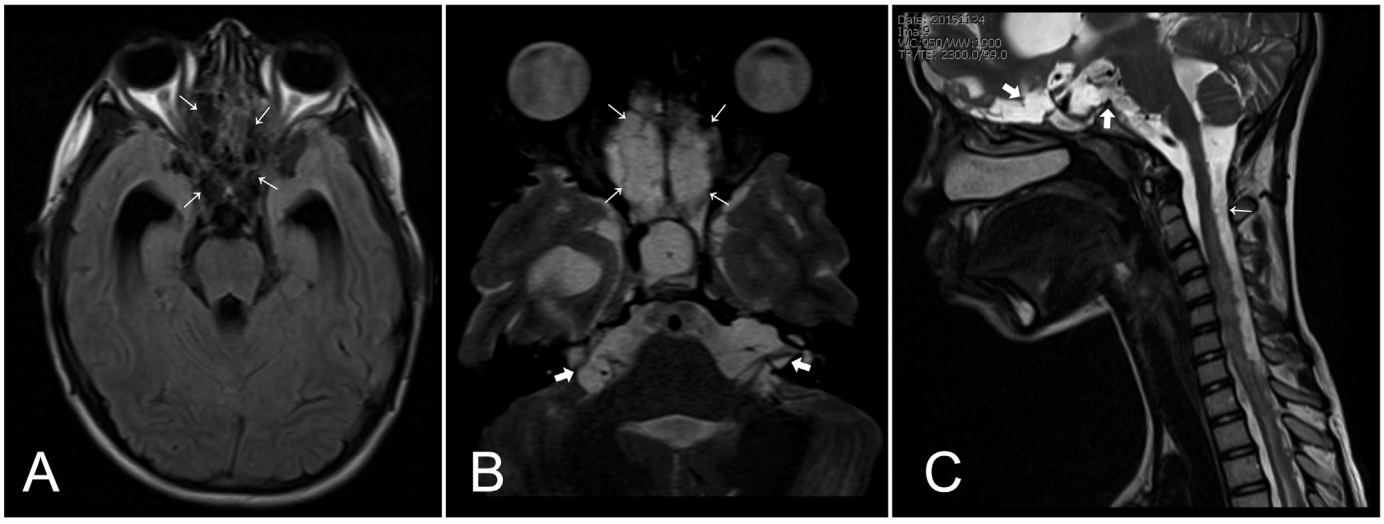

Figure 1. Magnetic resonance image of the brain showing multiple cysts of neurocysticercosis (racemose form). (A) FLAIR axial scan exhibiting hydrocephalus and multiple cystic lesions (area depicted by thin arrows). (B) T2-weighted axial scan exhibiting multiple extra-axial cystic lesions in the frontal base (area depicted by thin arrows) and cerebellopontine angle cistern (thick arrows). (C) Mid-sagittal T2-weighted image of the spine showing multiple dot-like cystic lesions along the spinal cord, with highlighted meninges (thin arrow) and suprasellar and prepontine areas (thick arrows).

Keywords:
Neurocysticercosis
Amaurosis
Ventriculoperitoneal shunt
Taenia solium
Pork tapeworm

A 12-year-old boy presented headache, vomiting, and blurred vision for 10 months prior to admission. Gait disturbances, bilateral amaurosis, altered behaviour, chorea, right hemiparesis, and tonic–clonic seizures developed progressively. On admission, tetraventricular hydrocephalus and intracranial hypertension (ICH) were detected, associated with multiple vesicles in the frontal, suprasellar, and prepontine areas, corresponding to racemose neurocysticercosis. The spine also showed signs of meningitis and cysticercosis (Figure 1). The cerebrospinal fluid (CSF) was colourless with a glucose concentration of 81 mg/dl, protein level of 3772 mg/dl, and a white blood cell count of 16×10^3/l (94% lymphocytes); ELISA (IgG) was positive for cysticerci of *Taenia solium* in the CSF. A ventriculoperitoneal shunt was placed and dexamethasone, albendazole, and phenobarbital were prescribed. The patient's clinical status improved significantly, with the disappearance of chorea and normalization of the level of awareness and gait.

Neurocysticercosis is an infection caused by a cystic form of *T. solium* and is the most common cause of neurological morbidity in the world.[1] The usual clinical manifestations are seizures (up to 80%), headache (27.7%), mental status changes (28.1%), increased intracranial pressure (16.3%),[2] cognitive disturbances (66–87.5%),[1] and, less commonly, amaurosis.[3] The racemose form is characterized by the appearance of a 'cluster of grapes' and corresponds to 10% of cases;[1] symptoms may be related to a space-occupying effect rather than inflammation,[4] and the optic nerve may become encased within the lesions, causing decreased vision. The treatment of disseminated forms includes a combination of corticosteroids and anti-parasitic drugs (albendazole and/or praziquantel) for 7 to 28 days, in addition to the use of a ventricular shunt in cases of ICH.[1–3]

Ethical approval: Ethical approval was not required for this case, but written informed consent was obtained from the parents of the patient for this publication.

http://dx.doi.org/10.1016/j.ijid.2016.04.012

Funding: No funding resources.

Conflict of interest: None.

Author contributions: All authors made similar and substantial intellectual contributions to the conception and design of the study and approved the final version of the manuscript to be published. PSC drafted the paper.

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Corresponding Editor: Eskild Petersen, Aarhus, Denmark.

Received 29 March 2016